THE MINISTER OF STATE OF THE MINISTRY OF POWER AND NON-CONVENTIONAL ENERGY SOURCES (SHRI KALP NATH RAI): (a) During the year 1990-91 and 1991-92, three failures in each year resulting in disruption of power supply in large areas of the grid have occurred in the Northern Region.

(b) The main factors responsible for these grid failures have been as under :

1. Faults causing short circuits in the transmission system.
2. Failure of equipments like capaci-tive voltage transformers, circuit breakers, snapping of Conductors, etc.
3. Failure of protection system.
4. Low voltage caused by heavy reactive power demand by agricultural pumping loads.

(c) The loss of energy generation due to these grid failure during the year 1990-91 and 1991-92 has been estimated to be 53.4 and 80.1 MU respectively. An estimate on indirect losses is not available.

(d) and (e) The analysis of the grid disturbances done by Northern Regional Electricity Board has, *inter-alia,* indicated that none of the failures have occurred due to lapse of any individual.

(f) Various technical measures aimed at avoiding failures of equipments and localising the faults in the event of a disturbance are being taken. These cover review and modification of protection schemes, intensified maintenance of transmisson lines and equipments, installation of equipments to avoid voltage collapse and augmentation of modern load dispatch and communication facilities.

**Award of Contract for Gandhar Power .. Project**

1777. SHRI RAMDAS AGARWAL: Will the Minister of POWER AND NON-CONVENTIONAL ENERGY SOURCES be pleased to state:

(a) whether it is a fact that Government was under immense pressure from the Japanese Government to expedite its decision on the award of the contract for the Gandhar gas based power project of N.T.P.C;

(b) whether it is also a fact that the third tranche of loan for the project in 1992 from the Overseas Economic Cooperation Fund is likely to be delayed ;

(c) whether N.T.P.C's. technical terms have overcome the initial teething problems as regards the performance of turbine to be imported from Swiss and performance of machines with foreign company's assistance; and

(d) if so, what is the present stage of progress in this regard *1*

THE MINISTER OF STATE OF THE MINISTRY OF POWER AND NON-CONVENTIONAL ENERGY SOURCES (SHRI KALP NATH RAI): (a) No, Sir. The decision to award the contract was not a Government decision.

(b) No, Sir.

(c) NTPC's technical team was deputed to Netherlands to seek first hand information from the utility on the teething problems faced in the gas turbines and the solution effected by the manufacturer to 'overcome these problems. The team was satisfied with the effectiveness of the corrective measures taken by the manufacturer to overcome the teething problems in gas turbines and of the satisfactory performance of the machines thereafter. The gas turbines are to be imported from West Germany and not from Switzerland.

(d) The contract for the main plant equipments has been awarded on 26-3-1992. Preliminary work is in progress at site.

**Wind Energy Programme in Madhya Pradesh**

1778. SHRI AJIT P. K. JOGI:
KUMARI ALIA:

Will the Minister of POWER AND NON-CONVENTIONAL ENERGY SOURCES be pleased to state :

(a) what are the schemes under, the wind energy programme for Madhya Pradesh; and

(b) what achievement has so far been made in this regard ?

THE MINISTER OF STATE OF THE MINISTRY OF POWER AND NON-CONVENTIONAL ENERGY SOURCES (SHRI KALP NATH RAI): (a) and (b) The wind energy programme is being implemented by Madhya Pradesh Urja Vikas Nigam. Activities undertaken in Madhya Pradesh under the wind energy programme comprise survey projects for wind resource assessment and demonstration projects for wind power generation, battery charging and water pumping applications. Thirty wind mapping stations and five wind monitoring stations have been established for collection of wind data under the wind survey projects.

A 500 KW wind farm project was established at Kheda in Dhar District in February, 1990 and over 11 lakh units of electricity have so far been fed to the State gird from this project. In addition, a 90 KW wind electric generator at Kheda and a 50 KW wind electric generator at Kukru have been installed. 164 shallow well and 3 deep well water pumping windmills and 4 wind battery chargers have also been insttalled in the State at different locations.

**Delay in Clearance of Power Projects**

1779. SHRI KAMAL MORARKA: Will the Minister of POWER AND NON-CONVENTIONAL ENERGY SOURCES be pleased to refer to the answer to the Unstarred Question 918 given in the Rajya Sabha on 3rd March, 1992 and state:

(a) what are the cost overruns as a result of delay in the execution of the projects pending for clearance with the Ministry of Environment and Forests ;

(b) what is the shortage of power likely to be experienced during the Eighth Plan period ; and

(c) what measures have been taken to accelerate completion of these projects ?

THE MINISTER OF STATE OF THE MINISTRY OF POWER AND NON-CONVENTIONAL ENERGY SOURCES (SHRI KALP NATH RAI): (a) *to* (c) The information is being collected and will be laid on the Table of the House.

**Conference of Power Ministers**

1780. SHRI MAHENDRA PRASAD:

SHRI MURLIDHAR CHANDRA-KANT BHANDARE:

DR. RATNAKAR PANDEY :

Will the Minister of POWER AND NON-CONVENTIONAL ENERGY SOURCES be pleased to state :

(a) whether a Conference of Power Ministers was held in New Delhi on the 4th April, 1992; and

(b) if so, what were the main observa-lions and suggestions made and decisions taken at the Conference ?

THE MINISTER OF STATE OF THE MINISTRY OF POWER AND NON-CONVENTIONAL ENERGY SOURCES (SHRI KALP NATH RAI): (a) Yes, Sir.

(b) The Conference was organised in the context of the commencement of the 8th Plan. It addressed itself to the problems being. faced in the power sector, and emphasized the need for improving the management and performance of State Electricity Boards (SEBs) & the power Sector as a whole. The Conference expressed concern with the problems relating to coal supply and transportation, environment & forest clearances and the need for increasing the share of hydro power.

The conference adopted four resolutions namely:

1. the need for SEBs to function on sound commercial principles and, earn a statutory minimum return of 3% per annum as prescribed in the Electricity Supply Act, 1948.
2. the need to fix a minimum national agricultural tariff @ 50 paise per KWH for the present.
3. the need to immediately constitute the National and Regional Tariff Boards,